#### REPORT DOCUMENTATION PAGE

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Final Report: 2017 Atmospheric Chemistry Gordon Research					W911NF-17-1-0289			
Conference			·	5b. GF	5b. GRANT NUMBER			
					5c. PROGRAM ELEMENT NUMBER 611102			
6. AUTHOR	S				5d. PROJECT NUMBER			
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				5f. W0	ORK	UNIT NUMBER		
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UU	UU	UU	UU			19b. TELEPHONE NUMBER 858-822-5312		

#### **RPPR Final Report**

as of 17-Nov-2017

Agency Code:

Proposal Number: 71318CHCF Agreement Number: W911NF-17-1-0289

**INVESTIGATOR(S):** 

Name: Ph.D Kimberly A. Prather Email: kprather@ucsd.edu
Phone Number: 8588225312

Principal: Y

Organization: **Gordon Research Conferences, Inc.**Address: 512 Liberty Lane, West Kingston, RI 028921502

Country: USA

DUNS Number: 075712877 EIN: 050300482

Report Date: 28-Feb-2018 Date Received: 13-Nov-2017

Final Report for Period Beginning 01-Jun-2017 and Ending 30-Nov-2017

Title: 2017 Atmospheric Chemistry Gordon Research Conference

Begin Performance Period: 01-Jun-2017 End Performance Period: 30-Nov-2017

Report Term: 0-Other

Submitted By: Nancy Ryan Gray Email: nih@grc.org
Phone: (401) 360-1505 **Distribution Statement:** 1-Approved for public release; distribution is unlimited.

STEM Degrees: 0 STEM Participants: 0

**Major Goals:** The 2017 meeting included a broad range of topics and new developments in the field of atmospheric chemistry. Changes to the atmosphere are occurring at an unprecedented rate due to a rapidly growing global population and thus the field of atmospheric chemistry faces new challenges. This conference provided a forum for an open and provocative discussion of major gaps in the field with a focus on how we can improve our understanding and predictive ability of the atmosphere through integration of fundamental laboratory studies with field observations and models. This meeting specifically focused on aerosol-cloud interactions, ice nucleation, biosphere-atmosphere feedbacks, integration of measurements and models, indoor air quality, aerobiology, and fundamental gas and heterogeneous reaction processes.

**Accomplishments:** The 2017 meeting included a broad range of topics and new developments in the field of atmospheric chemistry. Changes to the atmosphere are occurring at an unprecedented rate due to a rapidly growing global population and thus the field of atmospheric chemistry faces new challenges. This conference provided a forum for an open and provocative discussion of major gaps in the field with a focus on how we can improve our understanding and predictive ability of the atmosphere through integration of fundamental laboratory studies with field observations and models. This meeting specifically focused on aerosol-cloud interactions, ice nucleation, biosphere-atmosphere feedbacks, integration of measurements and models, indoor air quality, aerobiology, and fundamental gas and heterogeneous reaction processes.

Training Opportunities: Nothing to Report

Results Dissemination: Conference Program

Honors and Awards: Nothing to Report

**Protocol Activity Status:** 

**Technology Transfer:** Nothing to Report

## RPPR Final Report as of 17-Nov-2017

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#### GORDON RESEARCH CONFERENCES

FINAL PROGRESS REPORT Army Research Office Atmospheric Chemistry GRC

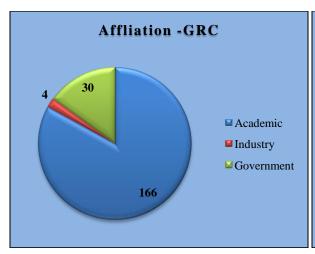
Grant Number W911NF-17-1-0289 July 30-August 4, 2017

#### **Operational Summary**

The Gordon Research Conference (GRC) Atmospheric Chemistry was held at Sunday River in Newry, Maine from July 30-August 4, 2017. The meeting covered a variety of scientific topics and the content presented was highly rated by participants.

### Conference Participants

The Conference was well-attended with 200 participants. Scientists from academia represented 83% of the participants while attendees from government accounted for 15% and those from industry totaled 2%. The meeting also attracted a strong mix of young investigators and senior scientists. Students and post-docs accounted for 34% of all attendees. Approximately 42% of the participants at the 2017 meeting were women.





#### **Conference Program**

The 2017 meeting included a broad range of topics and new developments in the field of atmospheric chemistry. Changes to the atmosphere are occurring at an unprecedented rate due to a rapidly growing global population and thus the field of atmospheric chemistry faces new challenges. This conference provided a forum for an open and provocative discussion of major gaps in the field with a focus on how we can improve our understanding and predictive ability of the atmosphere through integration of fundamental laboratory studies with field observations and models. This meeting specifically focused on aerosol-cloud interactions, ice nucleation, biosphere-atmosphere feedbacks, integration of measurements and models, indoor air quality, aerobiology, and fundamental gas and heterogeneous reaction processes.

#### **Conference Budget**

Funding provided by the ARO supported partial registration for 16 postdocs, 6 graduate students, 8 professors, 4 associate professors and 1 research scientist at the GRC.

#### **Conference Feedback**

Participants had an opportunity to provide feedback at the end of the Conference. The feedback collected from the meeting was extremely positive. Evaluations included numerous positive remarks regarding the amount of women who were apart of the program, the variety of the posters presented, as well as how helpful the informal sessions were.

GRC would like to thank the ARO for its continued support of the meetings. The contributions received have been critical to the success of the conferences and are having a measurable impact in advancing the frontiers of science worldwide.
Dr. Kimberly Prather GRC Chair University of California, San Diego
Dr. Nancy Ryan Gray President and Chief Executive Officer Gordon Research Conferences

#### **Atmospheric Chemistry**

Gordon Research Conference

Addressing the Complexity of Our Atmosphere Through Integration Across Scales

July 30 - August 4, 2017

Grand Summit Hotel at Sunday River

Newry, ME

Chair: Kim Prather

Vice Chairs: Neil M. Donahue & Ronald C. Cohen

#### Contributors























Carnegie Mellon University





#### Meeting Program

Sunday	
2:00 pm - 9:00 pm	Arrival and Check-in
6:00 pm	Dinner
7:30 pm - 7:40 pm	Welcome / Introductory Comments by GRC Site Staff
7:40 pm - 9:30 pm	Keynote Session: Atmospheric Chemistry Challenges of the 21st Century
	Discussion Leader: Colette Heald (Massachusetts Institute of Technology, USA)

7:40 pm - 7:45 pm	Opening Remarks
7:45 pm - 8:00 pm	Introduction by Discussion Leader
8:00 pm - 8:30 pm	John Seinfeld (California Institute of Technology, USA) "Secondary Organic Aerosol Production in Laboratory Chambers"
8:30 pm - 8:45 pm	Discussion
8:45 pm - 9:15 pm	A.R. Ravishankara (Colorado State University, USA) "Role of Atmospheric Chemistry in the Earth's Environment"
9:15 pm - 9:30 pm	Discussion

9:15 pm - 9:30 pm	Discussion		
Monday			
7:30 am - 8:30 am	Breakfast		
9:00 am - 12:30 pm	Mother Nature's Control of Atmospheric Chemistry and Climate		
	Discussion Leader: Susannah Burrows (Pacific Northwest National Laboratory, USA)		
9:00 am - 9:15 am	Introduction by Discussion Leader		
9:15 am - 9:45 am	Janine Frohlich (Max Planck Institute for Chemistry, Germany)		
	"Characterization and Quantification of Biological Ice Nuclei"		
9:45 am - 10:00 am	Discussion		
10:00 am - 10:30 am	Jonathan Raff (Indiana University, USA)		
	"Biogeochemical Controls on the Sources and Fate of Reactive Oxides of Nitrogen in the		
	Atmosphere"		
10:30 am - 10:45 am	Discussion		
10:45 am - 11:05 am	Coffee Break		
11:05 am - 11:35 am Allison Steiner (University of Michigan, USA)			
	"The Atmospheric Life Cycle of Pollen: From Plant to Grain to Particle"		
11:35 am - 11:50 am	Discussion		
11:50 am - 12:00 pm	General Discussion		
12:00 pm - 12:30 pm	Poster Previews		
12:30 pm	Lunch		
1:30 pm - 4:00 pm	Free Time		
4:00 pm - 6:00 pm	Poster Session		
6:00 pm	Dinner		
7:30 pm - 9:30 pm	Challenges in Indoor Air Chemistry Measurements		

	Discussion Leader: <b>Richard Corsi</b> (University of Texas at Austin, USA)
7:30 pm - 7:45 pm	Introduction by Discussion Leader
7:45 pm - 8:15 pm	Nicola Carslaw (University of York, United Kingdom)
	"How Important Is Indoor Air Chemistry? Insights from a Detailed Chemical Model"
8:15 pm - 8:30 pm	Discussion
8:30 pm - 9:00 pm	William Nazaroff (University of California, Berkeley, USA)
	"CSI Oakland: Probing the Depths of Residential Indoor Air Chemistry"
9:00 pm - 9:15 pm	Discussion
9:15 pm - 9:30 pm	General Discussion
Tuesday	
7:30 am - 8:30 am	Breakfast
9:00 am - 12:30 pm	Chemistry in the Remote Atmosphere
	Discussion Leader: Jennifer Murphy (University of Toronto, Canada)
9:00 am - 9:15 am	Introduction by Discussion Leader
9:15 am - 9:45 am	Jonathan Abbatt (University of Toronto, Canada)  "Agreed in the Arctic Summertimes Particle Formation and Growth, Clouds, and Malting See
	"Aerosol in the Arctic Summertime: Particle Formation and Growth, Clouds, and Melting Sea Ice"
9:45 am - 10:00 am	Discussion
10:00 am - 10:30 am	Jenny Fisher (University of Wollongong, Australia)
	"Fates of Volatile Organic Compounds in the Presence of (Some) NOx: Implications for the
10.20 10.45	Remote Atmosphere"
10:30 am - 10:45 am	
10:45 am - 11:05 am	
11:05 am - 11:35 am	Andi Andreae (Max Planck Institute for Chemistry, Germany)  "Where Is the Source of New Particles in the Pristine Atmosphere?"
11:35 am - 11:50 am	Discussion
11:50 am - 12:00 pm	General Discussion
12:00 pm - 12:30 pm	Poster Previews
12:30 pm	Lunch
1:30 pm - 4:00 pm	Free Time
4:00 pm - 6:00 pm	Poster Session

6:00 pm	Dinner
7:30 pm - 9:30 pm	Impact of Interfacial Composition on Heterogeneous Chemistry and Ice Nucleation
	Discussion Leader: Ryan Sullivan (Carnegie Mellon University, USA)
7:30 pm - 7:45 pm	Introduction by Discussion Leader
7:45 pm - 8:15 pm	Gilbert Nathanson (University of Wisconsin-Madison, USA) "Exploring the Dynamics of Atmospheric Reactions at the Surface of Sea Spray Mimics"
8:15 pm - 8:30 pm	Discussion
8:30 pm - 9:00 pm	Valeria Molinero (University of Utah, USA)  "Ice Nucleation by Organic and Biological Molecules: A Molecular Perspective"
9:00 pm - 9:15 pm	Discussion
9:15 pm - 9:30 pm	General Discussion
Wednesday	
7:30 am - 8:30 am	Breakfast
8:30 am	Group Photo
9:00 am - 12:30 pm	Integration of Measurements and Models: Impacts of Aerosols on Clouds, Climate, and Weather
	Discussion Leader: <b>Douglas Worsnop</b> (Aerodyne Research, Inc., USA)
9:00 am - 9:15 am	Introduction by Discussion Leader
9:15 am - 9:45 am	Ilona Riipinen (Stockholm University, Sweden) "What Do We Need to Know About the Molecular Composition of Organic Aerosol to Capture Its Interaction with Clouds?"
9:45 am - 10:00 am	Discussion
10:00 am - 10:30 am	Ruby Leung (Pacific Northwest National Laboratory, USA) "Aerosol Source Impacts on Clouds and Precipitation"
10:30 am - 10:45 am	Discussion
10:45 am - 11:05 am	Coffee Break
11:05 am - 11:35 am	Daniel Rosenfeld (Hebrew University of Jerusalem, Israel) "Clouds Obscuring Aerosol Retrievals? Using Clouds for Revealing Aerosol Emission Sources and Climatic Impacts"
11:35 am - 11:50 am	Discussion
11:50 am - 12:00 pm	General Discussion

12:00 pm - 12:30 pm	Poster Previews
12:30 pm	Lunch
1:30 pm - 4:00 pm	Free Time
4:00 pm - 6:00 pm	Poster Session
6:00 pm	Dinner
7:00 pm - 7:30 pm	Business Meeting
	Nominations for the Next Vice Chair; Fill in Conference Evaluation Forms; Discuss Future Site and Scheduling Preferences; Election of the Next Vice Chair
7:30 pm - 9:30 pm	Challenges in Measuring and Modeling of Atmospheric Composition with Implications for Understanding Air Quality and Climate
	Discussion Leader: Randall Martin (Dalhousie University, Canada)
7:30 pm - 7:45 pm	Introduction by Discussion Leader
7:45 pm - 8:15 pm	Ulrike Lohmann (ETH Zurich, Switzerland) "Why Does the Influence of Aerosols on Clouds and Climate Remain Uncertain?"
8:15 pm - 8:30 pm	Discussion
8:30 pm - 9:00 pm	Ilan Koren (Weizmann Institute of Science, Israel) "Warm Convective Cloud Fields as a (Toy) Model for Challenges and Complexities in Cloud- Climate Research"
9:00 pm - 9:15 pm	Discussion
9:15 pm - 9:30 pm	General Discussion
Thursday	
7:30 am - 8:30 am	Breakfast
9:00 am - 12:30 pm	Fundamental Atmospheric Chemistry: Gas and Multiphase Processes
	Discussion Leader: Annmarie Carlton (University of California, Irvine, USA)
9:00 am - 9:15 am	Introduction by Discussion Leader
9:15 am - 9:45 am	Craig Taatjes (Sandia National Laboratories, USA)  "Characterization of Intermediates in Atmospherically Relevant Hydrocarbon Oxidation  Processes"
9:45 am - 10:00 am	Discussion
10:00 am - 10:30 am	Cari Dutcher (University of Minnesota, USA) "Exploring Aerosol Water Uptake, Surface Tension, Viscosity, and Phase Using Microfluidic Contractions, Wells, and Traps"

10:30 am - 10:45 am	Discussion
10:45 am - 11:05 am	Coffee Break
11:05 am - 11:35 am	<b>Barbara Turpin</b> (University of North Carolina at Chapel Hill, USA) "Progress and Prospects: The Quest to Understand the Impacts of Multiphase Chemistry on a Wet Planet"
11:35 am - 11:50 am	Discussion
11:50 am - 12:00 pm	General Discussion
12:00 pm - 12:30 pm	Poster Previews
12:30 pm	Lunch
1:30 pm - 4:00 pm	Free Time
4:00 pm - 5:30 pm	Poster Session
5:30 pm - 7:30 pm	Chemistry Across Scales: From Nanometers to Megameters
	Discussion Leader: Renyi Zhang (Texas A&M University, USA)
5:30 pm - 5:45 pm	Introduction by Discussion Leader
5:45 pm - 6:15 pm	<b>Steven Brown</b> (Earth System Research Laboratory, NOAA, USA) "Megacities, Forests, and Fires: Chemical Complexity Across Widely Different Atmospheres"
6:15 pm - 6:30 pm	Discussion
6:30 pm - 7:00 pm	Nicole Riemer (University of Illinois at Urbana-Champaign, USA) "Aerosol Mixing State: Metrics, Measurements, and Modeling"
7:00 pm - 7:15 pm	Discussion
7:15 pm - 7:30 pm	General Discussion
8:00 pm	Dinner
Friday	
7:30 am - 8:30 am	Breakfast

The views, opinions, and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army or U.S. Government position, policy, and or decision, unless so designated by other documentation.

9:00 am

Departure

#### **Atmospheric Chemistry (2017)**

Atmospheric Chemistry (2017)			
Name	Organization	Participation	
Abbatt, Jonathan	University of Toronto	Speaker	
Al-Naiema, Ibrahim M	University of Iowa	Poster Presenter	
Alexander, Becky	University of Washington	Poster Presenter	
Alpert, Peter A	Paul Scherrer Institut	Poster Presenter	
Altaratz, Orit	The Weizmann Institute of Science	Poster Presenter	
Andreae, Andi	Max Planck Institute for Chemistry	Speaker	
Asher, Elizabeth C	National Center for Atmospheric Research	Poster Presenter	
Ault, Andrew P	University of Michigan	Poster Presenter	
Bahreini, Roya	U. of California- Riverside	Poster Presenter	
Barreira, Luis	University of Helsinki	Poster Presenter	
Barsanti, Kelley C	University of California Riverside	Poster Presenter	
Bates, Kelvin H	Caltech	Poster Presenter	
Berkemeier, Thomas	Georgia Institute of Technology	Poster Presenter	
Bertram, Timothy H	UW Madison, Department of Chemistry	Poster Presenter	
Boering, Kristie A	University of California, Berkeley	Poster Presenter	
Boose, Yvonne	Karlsruhe Institute of Technology	Poster Presenter	
Borduas, Nadine	ETH Zurich	Poster Presenter	
Boyer, Hallie C	University of Minnesota	Poster Presenter	
Brown, Steven S	Earth System Research Laboratory, NOAA	Speaker	
Burrows, Susannah	Pacific Northwest National Laboratory	Discussion Leader	
Campbell, Steven J	University of Cambridge	Poster Presenter	
Cappa, Christopher D	University of California, Davis	Poster Presenter	
Carlton, Annmarie G.	University of California, Irvine	Discussion Leader	
Carslaw, Nicola	University of York	Speaker	
Chai, Jiajue	Brown University	Poster Presenter	
Chan, Arthur	University of Toronto	Poster Presenter	
Chen, Qi	Peking University	Poster Presenter	
China, Swarup	Pacific Northwest National Laboratory	Poster Presenter	
Claiborn, Candis S	Washington State University	Attendee	
Cohen, Ronald C	UC Berkeley	Vice Chair	
Collins, Douglas B	University of Toronto	Poster Presenter	
Corsi, Richard	University of Texas at Austin	Discussion Leader	
Cropper, Paul M	Desert Research Institute	Poster Presenter	
Crosbie, Ewan	NASA - Langley Research Center	Poster Presenter	
De Gouw, Joost	Cooperative Institute for Research in Environmental Sciences	Poster Presenter	
De Haan, David O	University of San Diego	Poster Presenter	
Decarlo, Peter F	Drexel University	Poster Presenter	
Dibble, Theodore	SUNY-Environmental Science and Forestry	Poster Presenter	
Donahue, Neil M	Carnegie Mellon University	Vice Chair	

Doughty, David C	US Army Research Laboratory	Poster Presenter
Dubowski, Yael	Technion - Israel Institute of Technology	Poster Presenter
Dutcher, Cari	University of Minnesota	Speaker
Edgerton, Sylvia A	National Science Foundation	Attendee
Emerson, Ethan W	Colorado State University	Poster Presenter
Ervens, Barbara	CIRES, CU Boulder	Poster Presenter
Eugene, Alexis J	University of Kentucky	Poster Presenter
Fahey, David W	NOAA Earth System Research Laboratory	Attendee
Farmer, Delphine K	Colorado State University	Poster Presenter
Faust, Jennifer A	University of Toronto	Poster Presenter
Fierce, Laura M	Brookhaven National Laboratory	Poster Presenter
Fisher, Jenny A	University of Wollongong	Speaker
Franchin, Alessandro	CIRES/NOAA	Poster Presenter
Freedman, Miriam	Pennsylvania State University	Poster Presenter
Frohlich, Janine	Max Planck Institute for Chemistry	Speaker
Frost, Gregory J	NOAA ESRL Chemical Sciences Division (CSD)	Poster Presenter
Gallimore, Peter J	University of Cambridge	Poster Presenter
Galloway, Melissa M	Lafayette College	Poster Presenter
Gao, Meng	Harvard University	Attendee
Garofalo, Lauren A	Colorado State	Poster Presenter
Gaston, Cassandra	RSMAS/University of Miami	Poster Presenter
Geddes, Jeffrey A	Boston University	Poster Presenter
Gentner, Drew R	Yale University	Poster Presenter
George, Christian	CNRS-IRCELYON	Poster Presenter
Gligorovski, Sasho	Chinese Academy of Sciences	Poster Presenter
Goldstein, Allen H	University of California, Berkeley	Attendee
Grassian, Vicki H	University of California, San Diego	Poster Presenter
Grieshop, Andrew P	North Carolina State University	Poster Presenter
Griffin, Robert J	Rice University	Poster Presenter
Hall, Samuel R	NCAR	Poster Presenter
Hanson, David R	Augsburg College	Poster Presenter
Heald, Colette L	Massachusetts Institute of Technology	Discussion Leader
Hettiyadura, Anusha P S	The University of Iowa	Poster Presenter
Hildebrandt-Ruiz, Lea	University of Texas at Austin	Poster Presenter
Hinrichs, Ryan Z	Drew University	Poster Presenter
Hopke, Philip K	University of Rochester School of Medicine and Dentistry	Poster Presenter
Horowitz, Hannah M	University of Washington	Poster Presenter
Houle, Frances A	Lawrence Berkeley National Laboratory	Poster Presenter
Huisman, Andrew J	Union College	Poster Presenter
Hung, Hui-Ming	National Taiwan University	Poster Presenter
Hunt, Sherri Weers	US Environmental Protection Agency	Attendee

Isaacman-VanWertz, G Virginia Tech Poster Presenter Jerry, Adrienne D **Brookhaven National Laboratory** Attendee Jucks, Kenneth W NASA HQ Attendee Kahan, Tara F Syracuse University Poster Presenter Kanji, Zamin A Poster Presenter ETH Zurich Kari, Eetu University of Eastern Finland Poster Presenter Kelleher, Patrick J Yale University Poster Presenter Kenseth, Christopher M California Institute of Technology Poster Presenter Khan, Anwar University of Bristol Poster Presenter Kim, Michelle J Poster Presenter California Institute of Technology Kleindienst, Tadeusz E U.S. Environmental Protection Agency Poster Presenter Kodros, John K Poster Presenter Colorado State University Kopacz, Monika UCAR/NOAA Climate Program Office Attendee Koren, Ilan Weizmann Institute of Science Speaker Kristensen, Louise University of California San Diego Poster Presenter Krnavek, Laura Army Research Office Attendee Kroll, Jesse **MIT** Poster Presenter Lacey, Forrest National Center for Atmospheric Research Poster Presenter Leckey, John P **NASA** Langley Attendee Korea University of Technology and Education Poster Presenter Lee, Jeonghoon Poster Presenter Lee, Shanhu University of Alabama in Huntsville Lee, Yunha Washington State University Poster Presenter Leung, Ruby Pacific Northwest National Laboratory Speaker Lewis, Ernie R **Brookhaven National Laboratory** Poster Presenter Li, Lijie California Institute of Technology Poster Presenter Harvard University Poster Presenter Liu, Pengfei Lohmann, Ulrike ETH Zurich Speaker University of Alaska Fairbanks Mao, Jingqiu Poster Presenter Markovic, Milos Picarro Inc. Poster Presenter Marrero-Ortiz, Wilmarie Texas A&M University Poster Presenter Martin, Randall V Discussion Leader Dalhousie University Mazzoleni, Lynn R Michigan Technological Unversity Poster Presenter McCluskey, Christina S Colorado State University Poster Presenter McDuffie, Erin E Univeristy of Colorado Boulder/NOAA Poster Presenter Handix Scientific McMeeking, Gavin R Attendee McNeill, V. Faye Columbia University Poster Presenter Metcalf, Andrew R Clemson University Poster Presenter Miller, David J **Brown University** Poster Presenter Millet, Dylan B University of Minnesota Poster Presenter Molinero, Valeria University of Utah Speaker Montoya, Julia University of California, Irvine Poster Presenter

W D: 1 1W	NACA I D A G	D D
Moore, Richard H	NASA Langley Research Center	Poster Presenter
Morrison, Glenn C	Missouri University of Science & Technology	Poster Presenter
Mouchel-Vallon, Camille		Poster Presenter
Murphy, Jennifer G	University of Toronto	Discussion Leader
Murray, Lee T	University of Rochester	Poster Presenter
Nah, Theodora	Georgia Institute of Technology	Poster Presenter
Nathanson, Gilbert M	University of Wisconsin-Madison	Speaker
Navea, Juan	Skidmore College	Poster Presenter
Nazaroff, William	University of California, Berkeley	Speaker
Ng, Nga Lee	Georgia Institute of Technology	Poster Presenter
Nicely, Julie M	NASA Goddard Space Flight Center	Poster Presenter
Nizkorodov, Sergey A	University of California, Irvine	Poster Presenter
Offenberg, John H	US EPA	Poster Presenter
Olsiewski, Paula J	Alfred P. Sloan Foundation	Attendee
Onel, Lavinia C	University of Leeds	Poster Presenter
Paley, Miranda A	American Chemical Society	Attendee
Palm, Brett B	University of Colorado at Boulder	Poster Presenter
Petrucci, Giuseppe A	University of Vermont	Attendee
Petters, Sarah S	Colorado State University	Poster Presenter
Praplan, Arnaud P	Finnish Meteorological Institute	Poster Presenter
Prather, Kim	University of California, San Diego	Chair
Pratt, Kerri A	University of Michigan	Poster Presenter
Presto, Albert A	Carnegie Mellon University	Poster Presenter
Pusede, Sally	University of Virginia	Poster Presenter
Raff, Jonathan D	Indiana University	Speaker
Rapf, Rebecca J	University of Colorado Boulder	Poster Presenter
Ravishankara, A.R.	Colorado State University	Speaker
Ridley, David	Massachusetts Institute of Technology	Poster Presenter
Riemer, Nicole	University of Illinois at Urbana-Champaign	Speaker
Riipinen, Ilona	Stockholm University	Speaker
Romer, Paul S	UC Berkeley	Poster Presenter
Rosenfeld, Daniel	Hebrew University of Jerusalem	Speaker
Saha Drovet V	Carnagia Mallan University	Postar Presenter

Saha, Provat K Carnegie Mellon University Poster Presenter Sander, Stanley P Jet Propulsion Laboratory Poster Presenter Sanyal, Swarnali University of Illinois at Urbana Champaign Poster Presenter Saunders, Emily Howard University Poster Presenter Schuyler, Travis J University of Kentucky Poster Presenter Schwab, James J SUNY Albany Poster Presenter Schwantes, Rebecca H National Center for Atmospheric Research Poster Presenter

Seinfeld, John H California Institute of Technology Speaker
Shepson, Paul B National Science Foundation Attendee

Shiraiwa, Manabu	University of California, Irvine	Poster Presenter
Shrivastava, Manish K	Pacific Northwest National Laboratory	Poster Presenter
Slade, Jonathan H	Purdue University	Poster Presenter
Smith, Geoffrey D	University of Georgia	Poster Presenter
Steiner, Allison L	University of Michigan	Speaker
Stevens, Philip S	Indiana University	Poster Presenter
Styler, Sarah A	University of Alberta	Poster Presenter
Sullivan, Ryan C	Carnegie Mellon University	Discussion Leader
Sullivan, Ryan C	Cornell University	Poster Presenter
Sun, Kang	Harvard-Smithsonian Center for Astrophysics	Poster Presenter
Taatjes, Craig	Sandia National Laboratories	Speaker
Takahama, Satoshi	Ecole Polytechnique Federalee Lausanne	Poster Presenter
Thornton, Joel A	University of Washington	Poster Presenter
Turner, Alexander J	University of California at Berkeley	Poster Presenter
Turpin, Barbara	University of North Carolina at Chapel Hill	Speaker
Vaida, Veronica	University of Colorado, Boulder	Poster Presenter
Veghte, Daniel	Pacific Northwest National Laboratory	Poster Presenter
Volkamer, Rainer M	University of Colorado	Poster Presenter
Wade, Michael	University of Texas at Austin	Attendee
Wagstrom, Kristina M	University of Connecticut	Poster Presenter
Walters, Wendell	Brown University	Poster Presenter
Wang, Chen	University of Toronto	Poster Presenter
Wang, Yuxuan	University of Houston	Poster Presenter
Washenfelder, Rebecca A	NOAA / University of Colorado	Poster Presenter
Wennberg, Paul O	California Institute of Technology	Poster Presenter
Weschler, Charlie J	Rutgers University	Poster Presenter
Wiedinmyer, Christine	National Center for Atmospheric Research	Attendee
Willis, Megan D	University of Toronto	Poster Presenter
Womack, Caroline C	NOAA Earth System Research Laboratory	Poster Presenter
Worsnop, Douglas R	Aerodyne Research, Inc.	Discussion Leader
Xu, Lu	California Institute of Technology	Poster Presenter
Ylisirnio, Arttu AY	University of Eastern Finland	Poster Presenter
Zegel, William C	Water & Air Research, Inc.	Attendee
Zhang, Renyi	Texas A&M University	Discussion Leader
Zhang, Yue	University of North Carolina at Chapel Hill	Poster Presenter
Zheng, Yiqi	Yale University	Poster Presenter
Zhu, Lei	Wadsworth Center and University at Albany	Poster Presenter

Poster Presenter

200 Attendees

Zondlo, Mark A

Princeton University